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NEWS 12 Jul 02 FOREGE no longer contains STANDARDS file segment
NEWS 13 Jul 22 USAN to be reloaded July 28, 2002; saved answer sets no longer valid
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NEWS 18 Aug 08 NTIS has been reloaded and enhanced
NEWS 19 Aug 19 Aquatic Toxicity Information Retrieval (AQUIRE) now available on STN
NEWS 20 Aug 19 IFIPAT, IFICDB, and IFIUDB have been reloaded
NEWS 21 Aug 19 The MEDLINE file segment of TOXCENTER has been reloaded
NEWS 22 Aug 26 Sequence searching in REGISTRY enhanced
NEWS 23 Sep 03 JAPIO has been reloaded and enhanced

NEWS EXPRESS February 1 CURRENT WINDOWS VERSION IS V6.0d,
CURRENT MACINTOSH VERSION IS V6.0a(ENG) AND V6.0Ja(JP),
AND CURRENT DISCOVER FILE IS DATED 05 FEBRUARY 2002
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=> s dna vaccine
L1 4747 DNA VACCINE

=> s immunostimulatory sequence
L2 215 IMMUNOSTIMULATORY SEQUENCE

=> s cpg
L3 16514 CPG

=> s immun?
2 FILES SEARCHED...
L4 3712247 IMMUN?

=> s l3 and l4
L5 3245 L3 AND L4

=> s vaccine
L6 215563 VACCINE

=> s l5 and l6
L7 721 L5 AND L6

=> s clinical
L8 2359429 CLINICAL

=> s clinic?
L9 2676128 CLINIC?

=> s l7 and l9
L10 83 L7 AND L9

=> s review
L11 2373795 REVIEW

=> s l10 and l11
L12 28 L10 AND L11

=> dup rem l12
PROCESSING COMPLETED FOR L12
L13 17 DUP REM L12 (11 DUPLICATES REMOVED)

=> d ti so 1-17

L13 ANSWER 1 OF 17 MEDLINE DUPLICATE 1
TI Medicinal chemistry and therapeutic potential of CpG DNA.
SO Trends Mol Med, (2002 Mar) 8 (3) 114-21. Ref: 67
Journal code: 100966035. ISSN: 1471-4914.

L13 ANSWER 2 OF 17 MEDLINE DUPLICATE 2
TI DNA-based approaches to the treatment of allergies.
SO Curr Opin Mol Ther, (2002 Feb) 4 (1) 64-71.
Journal code: 100891485. ISSN: 1464-8431.

L13 ANSWER 3 OF 17 CAPLUS COPYRIGHT 2002 ACS
TI Nucleic acid for the treatment of cancer: genetic **vaccines** and DNA adjuvants
SO Current Pharmaceutical Design (2001), 7(16), 1641-1667
CODEN: CPDEFP; ISSN: 1381-6128

L13 ANSWER 4 OF 17 CAPLUS COPYRIGHT 2002 ACS
TI Novel cancer **vaccines**
SO Expert Opinion on Therapeutic Patents (2001), 11(6), 937-950
CODEN: EOTPEG; ISSN: 1354-3776

L13 ANSWER 5 OF 17 CAPLUS COPYRIGHT 2002 ACS
TI DNA **vaccine**
SO Rinsho Byori (2001), 49(7), 669-672
CODEN: RBYOAI; ISSN: 0047-1860

L13 ANSWER 6 OF 17 CAPLUS COPYRIGHT 2002 ACS
TI Improving DNA **vaccines** targeting viral infection
SO Intervirology (2001), Volume Date 2000, 43(4-6), 233-246
CODEN: IVRYAK; ISSN: 0300-5526

L13 ANSWER 7 OF 17 MEDLINE DUPLICATE 3
TI Nucleic acid **vaccines**: tasks and tactics.
SO IMMUNOLOGIC RESEARCH, (2001) 24 (3) 225-44. Ref: 191
Journal code: 8611087. ISSN: 0257-277X.

L13 ANSWER 8 OF 17 MEDLINE DUPLICATE 4
TI The search for novel adjuvants for early life vaccinations: can "danger"
motifs show us the way?.
SO ARCHIVUM IMMUNOLOGIAE ET THERAPIAE EXPERIMENTALIS, (2001) 49 (3) 209-15.
Ref: 60
Journal code: 0114365. ISSN: 0004-069X.

L13 ANSWER 9 OF 17 CAPLUS COPYRIGHT 2002 ACS
TI From bugs to drugs: therapeutic **immunomodulation** with oligodeoxynucleotides containing **CpG** sequences from bacterial DNA
SO Antisense & Nucleic Acid Drug Development (2001), 11(3), 181-188
CODEN: ANADF5; ISSN: 1087-2906

L13 ANSWER 10 OF 17 CAPLUS COPYRIGHT 2002 ACS
TI The role of **CpG** in DNA **vaccines**
SO Immunostimulatory DNA Sequences (2001), 125-132. Editor(s): Raz, Eval.
Publisher: Springer-Verlag, Berlin, Germany.
CODEN: 69AUN8

L13 ANSWER 11 OF 17 MEDLINE
TI DNA-based **immunotherapeutics** for the treatment of allergic disease.
SO IMMUNOLOGICAL REVIEWS, (2001 Feb) 179 102-18. Ref: 72
Journal code: 7702118. ISSN: 0105-2896.

L13 ANSWER 12 OF 17 CAPLUS COPYRIGHT 2002 ACS
TI New trends in **immunotherapy** to prevent atopic diseases
SO Trends in Pharmacological Sciences (2001), 22(2), 84-90
CODEN: TPHSDY; ISSN: 0165-6147

L13 ANSWER 13 OF 17 CAPLUS COPYRIGHT 2002 ACS
TI Potentiation of the activity of mucosal **vaccines** by **immunological** adjuvants
SO Romanian Archives of Microbiology and Immunology (2000), 59(3), 157-210
CODEN: RAMIE5; ISSN: 1222-3891

L13 ANSWER 14 OF 17 MEDLINE DUPLICATE 5
TI The role of **CpG** in DNA **vaccines**.
SO SPRINGER SEMINARS IN IMMUNOPATHOLOGY, (2000) 22 (1-2) 125-32. Ref: 63
Journal code: 7910384. ISSN: 0172-6641.

L13 ANSWER 15 OF 17 MEDLINE DUPLICATE 6
TI DNA and RNA-based **vaccines**: principles, progress and prospects.
SO VACCINE, (1999 Dec 10) 18 (9-10) 765-77. Ref: 142
Journal code: 8406899. ISSN: 0264-410X.

L13 ANSWER 16 OF 17 MEDLINE DUPLICATE 7
TI How BCG led to the discovery of **immunostimulatory** DNA.
SO JAPANESE JOURNAL OF INFECTIOUS DISEASES, (1999 Feb) 52 (1) 1-11. Ref: 91
Journal code: 100893704. ISSN: 1344-6304.

L13 ANSWER 17 OF 17 CAPLUS COPYRIGHT 2002 ACS
TI The **CpG** motif: implications for **clinical immunology**
SO BioDrugs (1998), 10(5), 341-346
CODEN: BIDRF4; ISSN: 1173-8804

=> d ibib ab 17,15,12,9,7,6,4,3,1

L13 ANSWER 17 OF 17 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1998:766008 CAPLUS
DOCUMENT NUMBER: 130:166817
TITLE: The **CpG** motif: implications for **clinical immunology**
AUTHOR(S): Krieg, Arthur M.
CORPORATE SOURCE: Veterans Affairs Medical Center, Iowa City,
Interdisciplinary Graduate Program in Immunology and Department of Internal Medicine, University of Iowa, and CpG ImmunoPharmaceuticals, Inc., Iowa City, IA, USA
SOURCE: BioDrugs (1998), 10(5), 341-346
CODEN: BIDRF4; ISSN: 1173-8804
PUBLISHER: Adis International Ltd.
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
AB A **review** with 57 refs. The **immune** system appears to have evolved a mechanism to detect prokaryotic nucleic acids based on their content of unmethylated **CpG** dinucleotides in particular base contexts. This response promotes the activation of antigen-specific B cells and the secretion of T helper-1-like cytokines. Preliminary animal studies indicate the potential therapeutic utility of **CpG** DNA as a **vaccine** adjuvant, and for the **immunotherapy** of cancer and allergic diseases. On the other hand, **CpG** DNA can also serve as a trigger for the sepsis syndrome and may have a pathogenic role in certain inflammatory **immune**-mediated diseases.
REFERENCE COUNT: 57 THERE ARE 57 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 15 OF 17 MEDLINE DUPLICATE 6
ACCESSION NUMBER: 2000048098 MEDLINE
DOCUMENT NUMBER: 20048098 PubMed ID: 10580187
TITLE: DNA and RNA-based **vaccines**: principles, progress and prospects.
AUTHOR: Leitner W W; Ying H; Restifo N P
CORPORATE SOURCE: National Cancer Institute, National Institutes of Health,
Building 10, Bethesda, MD 20892-1502, USA..
wolfgang_leitner@nih.gov
SOURCE: VACCINE, (1999 Dec 10) 18 (9-10) 765-77. Ref: 142
Journal code: 8406899. ISSN: 0264-410X.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, ACADEMIC)
LANGUAGE: English
FILE SEGMENT: Priority Journals

ENTRY MONTH: 200001
ENTRY DATE: Entered STN: 20000131
Last Updated on STN: 20000131
Entered Medline: 20000118

AB DNA vaccines were introduced less than a decade ago but have already been applied to a wide range of infectious and malignant diseases.

Here we review the current understanding of the mechanisms underlying the activities of these new vaccines. We focus on recent strategies designed to enhance their function including the use of

immunostimulatory (CpG) sequences, dendritic cells (DC), co-stimulatory molecules and cytokine- and chemokine-adjuvants. Although

genetic vaccines have been significantly improved, they may not be sufficiently immunogenic for the therapeutic vaccination of patients with infectious diseases or cancer in clinical trials.

One promising approach aimed at dramatically increasing the immunogenicity of genetic vaccines involves making them 'self-replicating'. This can be accomplished by using a gene encoding RNA

replicase, a polyprotein derived from alphaviruses, such as Sindbis virus.

Replicase-containing RNA vectors are significantly more immunogenic than conventional plasmids, immunizing mice at doses as low as 0.1 microg of nucleic acid injected once intramuscularly. Cells transfected with 'self-replicating' vectors briefly

produce large amounts of antigen before undergoing apoptotic death. This

death is a likely result of requisite double-stranded (ds) RNA intermediates, which also have been shown to super-activate DC. Thus, the

enhanced immunogenicity of 'self-replicating' genetic vaccines may be a result of the production of pro-inflammatory dsRNA, which mimics an RNA-virus infection of host cells.

L13 ANSWER 12 OF 17 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:97866 CAPLUS
DOCUMENT NUMBER: 134:309343
TITLE: New trends in immunotherapy to prevent atopic diseases
AUTHOR(S): Walker, C.; Zuany-Amorim, C.
CORPORATE SOURCE: Novartis Horsham Research Centre, Novartis
Pharmaceutical Ltd, West Sussex, RH12 5AB, UK
SOURCE: Trends in Pharmacological Sciences (2001), 22(2), 84-90
CODEN: TPHSDY; ISSN: 0165-6147
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English

AB A review and discussion with 58 refs. Advances in the understanding of the mol. and cellular immunol. mechanism of atopy have led to the development of new therapies for allergic diseases.

However, only a few new drugs have reached the clinic and none provides long-term immunomodulatory effects.

Immunotherapy, through its capacity to produce a long-term, antigen-specific, protective immune response, is the only etiol. treatment that offers the possibility of preventing or even curing atopic

diseases. However, the potential severe side-effects assocd. with conventional immunotherapy using whole allergen ext. limits its widespread use. Thus, novel strategies to minimize the side-effects and

improve the efficacy of immunotherapy are of considerable interest in the treatment of atopic diseases. Promising animal and human

studies, using approaches such as peptide immunotherapy, DNA vaccination, CpG oligonucleotides and mycobacterial vaccines, suggest that it might be possible to prevent or cure atopic diseases in the future.

REFERENCE COUNT: 58 THERE ARE 58 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 9 OF 17 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:506326 CAPLUS
DOCUMENT NUMBER: 135:240516
TITLE: From bugs to drugs: therapeutic immunomodulation with oligodeoxynucleotides containing CpG sequences from bacterial DNA
AUTHOR(S): Krieg, Arthur M.
CORPORATE SOURCE: Department of Veterans Affairs Medical Center, Iowa
City, IA, 52246, USA
SOURCE: Antisense & Nucleic Acid Drug Development (2001), 11(3), 181-188
CODEN: ANADF5; ISSN: 1087-2906
PUBLISHER: Mary Ann Liebert, Inc.
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English

AB A review with 96 refs. Several types of immune cells possess pattern recognition receptors (PRR) that can distinguish prokaryotic DNA from vertebrate DNA by detecting unmethylated CpG

dinucleotides in particular base contexts (CpG motifs).

Bacterial DNA or synthetic oligodeoxynucleotides contg. these CpG motifs activate both innate and acquired immune responses that have evolved to protect against intracellular infections. These T helper

1 (Th1)-like immune responses include activation of B cells, dendritic cells, macrophages, and natural killer (NK) cells. CpG DNA-induced immune activation can protect against infection either alone or in combination with a vaccine and is effective in the immunotherapy of allergic diseases and cancer. Human clin. trials using such CpG DNA are currently underway.

REFERENCE COUNT: 96 THERE ARE 96 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 7 OF 17 MEDLINE DUPLICATE 3
ACCESSION NUMBER: 2002088869 MEDLINE
DOCUMENT NUMBER: 21591127 PubMed ID: 11817323
TITLE: Nucleic acid vaccines: tasks and tactics.
AUTHOR: McKenzie B S; Corbett A J; Brady J L; Dyer C M; Strugnell R
A; Kent S J; Kramer D R; Boyle J S; Lew A M
CORPORATE SOURCE: The Walter & Eliza Hall Institute of Medical Research,
Royal Melbourne Hospital, Parkville, Australia.
SOURCE: IMMUNOLOGIC RESEARCH, (2001) 24 (3) 225-44. Ref: 191
Journal code: 8611087. ISSN: 0257-277X.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, ACADEMIC)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200206
ENTRY DATE: Entered STN: 20020131
Last Updated on STN: 20020604
Entered Medline: 20020603

AB There are no adequate vaccines against some of the new or reemerged infectious scourges such as HIV and TB. They may require strong

and enduring cell-mediated immunity to be elicited. This is quite a task, as the only known basis of protection by current commercial

vaccines is antibody. As DNA or RNA vaccines may induce both cell-mediated and humoral immunity, great interest has been shown in them. However, doubt remains whether their efficacy will suffice

for their clinical realization. We look at the various tactics to increase the potency of nucleic acid vaccines and divided them broadly under those affecting delivery and those affecting immune induction. For delivery, we have considered ways of improving uptake and the use of bacterial, replicon or viral vectors. For immune induction, we considered aspects of immunostimulatory CpG motifs, coinjection of cytokines or costimulators and alterations of the antigen, its cellular localization and its anatomical localization including the use of ligand-targeting to lymphoid tissue. We also thought that mucosal application of DNA deserved a separate section. In this review, we have taken the liberty to discuss these enhancement methods, whenever possible, in the context of the underlying mechanisms that might argue for or against these strategies.

L13 ANSWER 6 OF 17 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:258834 CAPLUS
DOCUMENT NUMBER: 135:316991
TITLE: Improving DNA vaccines targeting viral infection
AUTHOR(S): Sin, Jeong-Im; Weiner, David B.
CORPORATE SOURCE: Department of Pathology and Laboratory Medicine, University of Pennsylvania, Philadelphia, PA, 19104, USA
SOURCE: Intervirology (2001), Volume Date 2000, 43(4-6), 233-246
CODEN: IVRYAK; ISSN: 0300-5526
PUBLISHER: S. Karger AG
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
AB A review. DNA vaccination techniques have been recently under intensive investigation both preclinically and in human studies aimed at impacting viral infection. Collectively, DNA vaccines expressing viral antigens induce both antigen-specific humoral and cellular immune responses which in model systems are capable of impacting viral infection. However, in clin. settings the potency of this approach is still under investigation. Efficacy is improved in specific circumstances through the addn. of immunomodulatory mols. including cytokines as plasmid cassettes or through modification of the nos. of specific CpG sequences present in the backbone. Furthermore, combined vaccination schemes have been an important research focus for generating enhanced immunogenicity against viral infections. The ultimate utility of these approaches to prevent viral infection will require more work. However, improvements in the potency and focus of DNA vaccines present us with new opportunities for both basic research into protective immunity as well as novel strategies for immune therapy and prophylaxis.
REFERENCE COUNT: 137 THERE ARE 137 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 4 OF 17 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:431120 CAPLUS
DOCUMENT NUMBER: 135:194070
TITLE: Novel cancer vaccines
AUTHOR(S): Chen, Wangxue
CORPORATE SOURCE: Wakefield Gastroenterology Research Institute, Wakefield Hospital, Wellington South, N. Z.
SOURCE: Expert Opinion on Therapeutic Patents (2001), 11(6), 937-950
CODEN: EOTPEG; ISSN: 1354-3776
PUBLISHER: Ashley Publications Ltd.
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
AB The intellectual property literature concerning novel cancer vaccine strategies for the period of 1998 and 2000 is reviewed with 27 refs. and many cited patents. Nearly 400 citations have been identified and the majority of the citations described herein involve the identification of new tumor assocd. antigens and novel strategies of cancer vaccine formulations. Significant progress has been made during this period in the identification of new tumor assocd. antigens (TAAs), the refinement of gene and DNA vaccination techniques, the development of dendritic cell-based immunotherapy and the use of cytokines and CpG-contg. oligodeoxynucleotides as vaccine adjuvants. In addn., encouraging results have been obtained from vaccination studies of animal tumor models and a large no. of novel cancer vaccines are currently under development or at early stages of clin. evaluation.
REFERENCE COUNT: 230 THERE ARE 230 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 3 OF 17 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:776043 CAPLUS
DOCUMENT NUMBER: 136:84268
TITLE: Nucleic acid for the treatment of cancer: genetic vaccines and DNA adjuvants
AUTHOR(S): Leitner, W. W.; Hammerl, P.; Thalhamer, J.
CORPORATE SOURCE: Surgery Branch, National Cancer Institute, NIH, Bethesda, MD, 20892, USA
SOURCE: Current Pharmaceutical Design (2001), 7(16), 1641-1667
CODEN: CPDEFP; ISSN: 1381-6128
PUBLISHER: Bentham Science Publishers
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
AB A review. Despite some interesting pilot expts. more than a century ago, nucleic acid has only recently been added to the list of agents used for the prevention and therapy of cancer. Two distinct features of nucleic acids are used for this purpose: in DNA and RNA vaccines, genetic information for pathogen- or tumor-derived antigens is delivered to the host who then produces the encoded antigen and initiates an immune response. In DNA adjuvants, immunostimulatory sequences (CpG motifs) present in DNA of bacterial origin are used. Such sequences are delivered in the form of oligonucleotides or within the sequence of DNA vaccine. In addn., CpG oligonucleotides by themselves have successfully been used to stimulate the immune system in an antigen-independent manner for the treatment of exptl. tumors. DNA and RNA vaccines for the treatment and prevention of cancer and other diseases suffer from two some shortcomings: insufficient immunogenicity and - in the case of RNA - low stability. A variety of strategies are being explored to improve the efficacy of nucleic acid vaccines (genetic vaccines) esp. for self-antigens in the case of cancer. Among the most recent improvements are self-replicating RNA vaccines and replicase-based DNA-vaccines in which antigen expression is under the control of an alphaviral replicase. Despite highly promising results in many animal tumor models the efficacy of nucleic acid vaccines and adjuvants in the clinic remains to be seen.
REFERENCE COUNT: 204 THERE ARE 204 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 1 OF 17 MEDLINE DUPLICATE 1
ACCESSION NUMBER: 2002149770 MEDLINE
DOCUMENT NUMBER: 21874627 PubMed ID: 11879771
TITLE: Medicinal chemistry and therapeutic potential of CpG DNA.
AUTHOR: Agrawal Sudhir; Kandimalla Ekambar R
CORPORATE SOURCE: Hybridon, Inc., 345 Vassar Street, Cambridge, MA 02137, USA.. sagrawal@hybridon.com
SOURCE: Trends Mol Med, (2002 Mar) 8 (3) 114-21. Ref: 67
Journal code: 100966035. ISSN: 1471-4914.
PUB. COUNTRY: England: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200207
ENTRY DATE: Entered STN: 20020308
Last Updated on STN: 20020718
Entered Medline: 20020717
AB The observation that oligodeoxynucleotides containing **CpG** dinucleotides (**CpG** DNA) exhibit several **immunological** effects has led to their use as therapeutic agents and adjuvants for various diseases. Several **CpG** DNA drug candidates are currently being evaluated, either as monotherapies or as adjuvants (with **vaccines**, antibodies, antigens and allergens), in preclinical and **clinical** trials against cancers, viral and bacterial infections, allergies and asthma. Knowledge gained from studies of the medicinal chemistry of **CpG** DNA has provided a basis for designing a second generation of **CpG** DNA agents with desirable cytokine-inducing and potent **immunomodulatory** activity. This article **reviews** recent progress in understanding the effects of **CpG** DNA, the medicinal chemistry of **CpG** DNA, and its possible therapeutic applications.

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FILE 'MEDLINE, BIOSIS, CAPLUS' ENTERED AT 09:57:10 ON 06 SEP 2002
L1 4747 S DNA VACCINE
L2 215 S IMMUNOSTIMULATORY SEQUENCE
L3 16514 S CPG
L4 3712247 S IMMUN?
L5 3245 S L3 AND L4
L6 215563 S VACCINE
L7 721 S L5 AND L6
L8 2359429 S CLINICAL
L9 2676128 S CLINIC?
L10 83 S L7 AND L9
L11 2373795 S REVIEW
L12 28 S L10 AND L11
L13 17 DUP REM L12 (11 DUPLICATES REMOVED)

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NEWS 7 Apr 22 BIOSIS Gene Names now available in TOXCENTER
NEWS 8 Apr 22 Federal Research in Progress (FEDRIP) now available
NEWS 9 Jun 03 New e-mail delivery for search results now available
NEWS 10 Jun 10 MEDLINE Reload
NEWS 11 Jun 10 PCTFULL has been reloaded
NEWS 12 Jul 02 FOREGE no longer contains STANDARDS file segment
NEWS 13 Jul 22 USAN to be reloaded July 28, 2002; saved answer sets no longer valid
NEWS 14 Jul 29 Enhanced polymer searching in REGISTRY
NEWS 15 Jul 30 NETFIRST to be removed from STN
NEWS 16 Aug 08 CANCERLIT reload
NEWS 17 Aug 08 PHARMAMarketLetter(PHARMAML) - new on STN
NEWS 18 Aug 08 NTIS has been reloaded and enhanced
NEWS 19 Aug 19 Aquatic Toxicity Information Retrieval (AQUIRE) now available on STN
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NEWS 21 Aug 19 The MEDLINE file segment of TOXCENTER has been reloaded
NEWS 22 Aug 26 Sequence searching in REGISTRY enhanced
NEWS 23 Sep 03 JAPIO has been reloaded and enhanced

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L1 28577 PAPILLOMA

=> s cpg
L2 16514 CPG

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L3 27 L1 AND L2

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PROCESSING COMPLETED FOR L3
L4 14 DUP REM L3 (13 DUPLICATES REMOVED)

=> d ti so 1-14

L4 ANSWER 1 OF 14 MEDLINE
TI p16INK4a loss and sensitivity in KSHV associated primary effusion lymphoma.
SO ONCOGENE, (2002 Mar 14) 21 (12) 1823-31.
Journal code: 8711562. ISSN: 0950-9232.

L4 ANSWER 2 OF 14 CAPLUS COPYRIGHT 2002 ACS
TI Molecular markers of the cervix uteri cancer
SO Vestnik Rossiiskoi Akademii Meditsinskikh Nauk (2002), (1), 8-14
CODEN: VAMEE3; ISSN: 0869-6047

L4 ANSWER 3 OF 14 CAPLUS COPYRIGHT 2002 ACS
TI Methylation of the E-cadherin gene in bladder neoplasia and in normal
urothelial epithelium from elderly individuals
SO American Journal of Pathology (2001), 159(3), 831-835
CODEN: AJPAA4; ISSN: 0002-9440

L4 ANSWER 4 OF 14 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI Hypermethylation of the O6-methylguanine-DNA methyltransferase (MGMT) in
mouse skin tumors inhibits MGMT expression.
SO Proceedings of the American Association for Cancer Research Annual
Meeting, (March, 2001) Vol. 42, pp. 476. print.
Meeting Info.: 92nd Annual Meeting of the American Association for Cancer
Research New Orleans, LA, USA March 24-28, 2001
ISSN: 0197-016X.

L4 ANSWER 5 OF 14 MEDLINE DUPLICATE 1
TI Non-specific antiviral activity of antisense molecules targeted to the E1
region of human papillomavirus.
SO ANTIVIRAL RESEARCH, (2000 Dec) 48 (3) 187-96.
Journal code: 8109699. ISSN: 0166-3542.

L4 ANSWER 6 OF 14 CAPLUS COPYRIGHT 2002 ACS
TI E6 and E7 fusion proteins for vaccination against human **papilloma** virus
SO PCT Int. Appl., 62 pp.
CODEN: PIXXD2

L4 ANSWER 7 OF 14 MEDLINE DUPLICATE 2
TI **CpG** methylation directly inhibits binding of the human papillomavirus type 16 E2 protein to specific DNA sequences.
SO JOURNAL OF VIROLOGY, (1996 Oct) 70 (10) 7233-5.
Journal code: 0113724. ISSN: 0022-538X.

L4 ANSWER 8 OF 14 MEDLINE DUPLICATE 3
TI Mutation in the p53 tumor suppressor gene in rat esophageal **papillomas** induced by N-nitrosomethylbenzylamine.
SO CARCINOGENESIS, (1996 Apr) 17 (4) 625-30.
Journal code: 8008055. ISSN: 0143-3334.

L4 ANSWER 9 OF 14 MEDLINE DUPLICATE 4
TI Methylation sensitivity of the enhancer from the human papillomavirus type
16.
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1994 Apr 22) 269 (16) 11902-11.
Journal code: 2985121R. ISSN: 0021-9258.

L4 ANSWER 10 OF 14 CAPLUS COPYRIGHT 2002 ACS
TI The effect of DNA methylation on gene regulation of human papillomaviruses
SO J. Gen. Virol. (1993), 74(5), 791-801
CODEN: JGVIAY; ISSN: 0022-1317

L4 ANSWER 11 OF 14 MEDLINE DUPLICATE 5
TI v-Ha-ras-induced mouse skin **papillomas** exhibit aberrant expression of keratin K13 as do their 7,12-dimethylbenz[a]anthracene/12-O-tetradecanoylphorbol-13-acetate -induced analogues.
SO MOLECULAR CARCINOGENESIS, (1991) 4 (6) 467-76.
Journal code: 8811105. ISSN: 0899-1987.

L4 ANSWER 12 OF 14 MEDLINE DUPLICATE 6
TI Tissue-specific expression of murine keratin K13 in internal stratified
squamous epithelia and its aberrant expression during two-stage mouse skin
carcinogenesis is associated with the methylation state of a distinct **CpG** site in the remote 5'-flanking region of the gene.
SO DIFFERENTIATION, (1990 Apr) 43 (2) 105-14.
Journal code: 0401650. ISSN: 0301-4681.

L4 ANSWER 13 OF 14 MEDLINE DUPLICATE 7
TI Viral DNA sequences detected in a hamster liposarcoma induced by bovine
papillomavirus type 4.
SO JOURNAL OF GENERAL VIROLOGY, (1986 Jan) 67 (Pt 1) 187-90.
Journal code: 0077340. ISSN: 0022-1317.

L4 ANSWER 14 OF 14 CAPLUS COPYRIGHT 2002 ACS
TI Glycoprotein manufacture with genetically engineered mammalian cells
SO PCT Int. Appl., 30 pp.
CODEN: PIXXD2

=> d ibib ab 5

L4 ANSWER 5 OF 14 MEDLINE DUPLICATE 1
ACCESSION NUMBER: 2001167117 MEDLINE
DOCUMENT NUMBER: 21091914 PubMed ID: 11164505
TITLE: Non-specific antiviral activity of antisense molecules targeted to the E1 region of human papillomavirus.
AUTHOR: Lewis E J; Agrawal S; Bishop J; Chadwick J; Cristensen N D;
Cuthill S; Dunford P; Field A K; Francis J; Gibson V; Greenham A K; Kelly F; Kilkushie R; Kreider J W; Mills J

S;
Mulqueen M; Roberts N A; Roberts P; Szymkowski D E
CORPORATE SOURCE: Roche Discovery Welwyn, Broadwater Road, Herts. AL73AY,
Welwyn Garden City, UK.. jon.lewis@roche.com
SOURCE: ANTIVIRAL RESEARCH, (2000 Dec) 48 (3) 187-96.
Journal code: 8109699. ISSN: 0166-3542.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200106
ENTRY DATE: Entered STN: 20010618
Last Updated on STN: 20010618
Entered Medline: 20010614
AB Antisense phosphorothioate oligonucleotides (ODN1 0x5 OMe) directed
against the E1 start region of human papillomavirus 11 (HPV11) can inhibit
papillomavirus induced growth of implanted human foreskin in a mouse
xenograft model. Administration of a mismatch control oligonucleotide
(ODN9 0x5 OMe), in which guanine was replaced with adenine in the same
model, had no effect on **papilloma** induced growth. However, the
apparent antiviral activity of ODN1 0x5 OMe was also shown in a lethal
mouse cytomegalovirus (CMV) model, in which the oligonucleotides are not
expected to have antisense activity. To understand the mechanisms of
action of these oligonucleotides, a mismatch oligonucleotide (ODN61 0x5
OMe) was prepared which retained the **CpG** motifs of ODN1 0x5 OMe.
This was tested in the mouse xenograft model and shown to have moderate
inhibitory activity. As a definitive experiment, a comparison was made
between the efficacy of the active oligonucleotide ODN1 0x5 OMe against
two **papilloma** viruses HPV11 and HPV40. Both these viruses cause
benign genital warts, but differ by four bases in their E1 sequence that
was the target for ODN1 0x5 OMe. Papillomavirus induced growth in the
mouse xenograft model was inhibited by ODN1 0x5 OMe in both cases,
suggesting that oligonucleotide molecules have a non-specific antiviral
activity that is not directly related to their antisense sequence.

=> d his

(FILE 'HOME' ENTERED AT 12:34:43 ON 06 SEP 2002)

FILE 'MEDLINE, BIOSIS, CAPLUS' ENTERED AT 12:34:51 ON 06 SEP 2002
L1 28577 S PAPILLOMA
L2 16514 S CPG
L3 27 S L1 AND L2
L4 14 DUP REM L3 (13 DUPLICATES REMOVED)

=> lesion
LESION IS NOT A RECOGNIZED COMMAND
The previous command name entered was not recognized by the system. For a list of commands available to you in the current file, enter "HELP COMMANDS" at an arrow prompt (=>).

=> s lesion
L5 689344 LESION

=> s l2 and l5
L6 322 L2 AND L5

=> s virus
L7 1234235 VIRUS

=> s ?virus or ?viral
L8 1403845 ?VIRUS OR ?VIRAL

=> s l6 and l8
L9 17 L6 AND L8

=> dup rem l9
PROCESSING COMPLETED FOR L9
L10 10 DUP REM L9 (7 DUPLICATES REMOVED)

=> d ti so 1-10

L10 ANSWER 1 OF 10 MEDLINE DUPLICATE 1
TI DNA containing **CpG** motifs induces angiogenesis.
SO PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF
AMERICA, (2002 Jun 25) 99 (13) 8944-9.
Journal code: 7505876. ISSN: 0027-8424.

L10 ANSWER 2 OF 10 MEDLINE DUPLICATE 2
TI Coincident inactivation of 14-3-3sigma and p16INK4a is an early event in
vulval squamous neoplasia.
SO ONCOGENE, (2002 Mar 14) 21 (12) 1876-81.
Journal code: 8711562. ISSN: 0950-9232.

L10 ANSWER 3 OF 10 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI Expression of toll-like receptors in human atherosclerotic **lesions** : A possible pathway for plaque activation.
SO Circulation, (March 12, 2002) Vol. 105, No. 10, pp. 1158-1161.
http://circ.ahajournals.org/. print.
ISSN: 0009-7322.

L10 ANSWER 4 OF 10 CAPLUS COPYRIGHT 2002 ACS
TI Liposome-CAT complexes induce development of a non-inflammatory neointimal
lesion in rabbit carotid arteries
SO International Journal of Angiology (2002), 11(2), 67-72
CODEN: IJAGE5; ISSN: 1061-1711

L10 ANSWER 5 OF 10 MEDLINE DUPLICATE 3
TI Topical immunomodulators--progress towards treating inflammation,
infection, and cancer.
SO Lancet Infect Dis, (2001 Oct) 1 (3) 189-98. Ref: 85
Journal code: 101130150. ISSN: 1473-3099.

L10 ANSWER 6 OF 10 CAPLUS COPYRIGHT 2002 ACS
TI E6 and E7 fusion proteins for vaccination against human papilloma **virus**
SO PCT Int. Appl., 62 pp.
CODEN: PIXXD2

L10 ANSWER 7 OF 10 MEDLINE DUPLICATE 4
TI 1995 Deichmann Lecture--p53 tumor suppressor gene: at the crossroads of
molecular carcinogenesis, molecular epidemiology and cancer risk assessment.
SO TOXICOLOGY LETTERS, (1995 Dec) 82-83 1-7. Ref: 43
Journal code: 7709027. ISSN: 0378-4274.

L10 ANSWER 8 OF 10 CAPLUS COPYRIGHT 2002 ACS
TI Spontaneous mutations in lacI-containing .lambda. lysogens derived from
transgenic mice: the observed patterns differ in liver and spleen
SO Mutation Research (1994), 311(1), 57-67
CODEN: MUREAV; ISSN: 0027-5107

L10 ANSWER 9 OF 10 MEDLINE
TI Methylation in eucaryotes influences the repair of G/T and A/C DNA
basepair mismatches.
SO CELL BIOPHYSICS, (1989 Aug-Oct) 15 (1-2) 29-40.
Journal code: 8002185. ISSN: 0163-4992.

L10 ANSWER 10 OF 10 MEDLINE DUPLICATE 5
TI A specific mismatch repair event protects mammalian cells from loss of
5-methylcytosine.
SO CELL, (1987 Sep 11) 50 (6) 945-50.
Journal code: 0413066. ISSN: 0092-8674.

=> d his

(FILE 'HOME' ENTERED AT 12:34:43 ON 06 SEP 2002)

FILE 'MEDLINE, BIOSIS, CAPLUS' ENTERED AT 12:34:51 ON 06 SEP 2002
L1 28577 S PAPILLOMA
L2 16514 S CPG
L3 27 S L1 AND L2
L4 14 DUP REM L3 (13 DUPLICATES REMOVED)
L5 689344 S LESION
L6 322 S L2 AND L5
L7 1234235 S VIRUS
L8 1403845 S ?VIRUS OR ?VIRAL
L9 17 S L6 AND L8
L10 10 DUP REM L9 (7 DUPLICATES REMOVED)

=> s vaccin?
L11 284657 VACCIN?

=> s l2 and l11
L12 799 L2 AND L11

=> s without antigen
L13 498 WITHOUT ANTIGEN

=> s without(3a)antigen
L14 4125 WITHOUT(3A) ANTIGEN

=> s l12 and l14
L15 7 L12 AND L14

=> dupr rem l15
DUPR IS NOT A RECOGNIZED COMMAND
The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (=>).

=> dup rem l15
PROCESSING COMPLETED FOR L15
L16 3 DUP REM L15 (4 DUPLICATES REMOVED)

=> d ti so 1-3

L16 ANSWER 1 OF 3 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI Endothelial cell-derived growth factor expands murine hematopoietic
progenitor cells and DC precursor cells in vivo and increases the protective response to autologous tumor **vaccination**.
SO Blood, (November 16, 2001) Vol. 98, No. 11 Part 1, pp. 701a.
http://www.bloodjournal.org/. print.
Meeting Info.: 43rd Annual Meeting of the American Society of Hematology,
Part 1 Orlando, Florida, USA December 07-11, 2001
ISSN: 0006-4971.

L16 ANSWER 2 OF 3 MEDLINE DUPLICATE 1
TI **CpG** oligodeoxynucleotide **vaccination** suppresses IgE induction but may fail to down-regulate ongoing IgE responses in mice.
SO INTERNATIONAL IMMUNOLOGY, (2001 Jan) 13 (1) 3-11.
Journal code: 8916182. ISSN: 0953-8178.

L16 ANSWER 3 OF 3 MEDLINE DUPLICATE 2
TI Immunostimulatory DNA as an adjuvant in **vaccination** against Leishmania major.
SO INFECTION AND IMMUNITY, (1999 Aug) 67 (8) 3719-26.
Journal code: 0246127. ISSN: 0019-9567.

=> d ibib ab 3

L16 ANSWER 3 OF 3 MEDLINE DUPLICATE 2
ACCESSION NUMBER: 1999346151 MEDLINE
DOCUMENT NUMBER: 99346151 PubMed ID: 10417129
TITLE: Immunostimulatory DNA as an adjuvant in **vaccination** against Leishmania major.
AUTHOR: Stacey K J; Blackwell J M
CORPORATE SOURCE: Cambridge Institute for Medical Research, Addenbrooke's
Hospital, Cambridge CB2 2XY, United Kingdom..
K.Stacey@cmcb.uq.edu.au
SOURCE: INFECTION AND IMMUNITY, (1999 Aug) 67 (8) 3719-26.
Journal code: 0246127. ISSN: 0019-9567.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199908
ENTRY DATE: Entered STN: 19990820
Last Updated on STN: 19990820
Entered Medline: 19990812
AB Oligodeoxynucleotides (ODN) which contain immunostimulatory CG motifs (
CpG ODN) can promote T helper 1 (Th1) responses, an adjuvant activity that is desirable for **vaccination** against leishmaniasis. To test this, susceptible BALB/c mice were **vaccinated** with soluble leishmanial **antigen** (SLA) with or **without CpG** ODN as adjuvant and then challenged with Leishmania major metacyclic promastigotes. **CpG** ODN alone gave partial protection when injected up to 5 weeks prior to infection, and longer if the ODN was bound to alum. To demonstrate an antigen-specific adjuvant effect, a minimum of 6 weeks between **vaccination** and infection was required. Subcutaneous administration of SLA alone, SLA plus alum, or SLA plus non-**CpG** ODN resulted in exacerbated disease compared to unvaccinated mice. Mice
receiving SLA plus **CpG** ODN showed a highly significant ($P < 5 \times 10(-5)$) reduction in swelling compared to SLA-**vaccinated** mice and enhanced survival compared to unvaccinated mice. The modulation of the
response to SLA by **CpG** ODN was maintained even when mice were
infected 6 months after **vaccination**. **CpG** ODN was not an effective adjuvant for antibody production in response to SLA unless
given together with alum, when it promoted production of immunoglobulin
G2a, a Th1-associated isotype. Our results suggest that with an appropriate antigen, **CpG** ODN would provide a stable, cost-effective adjuvant for use in **vaccination** against leishmaniasis.

=> d is
'IS' IS NOT A VALID FORMAT
In a multifile environment, a format can only be used if it is valid in at least one of the files. Refer to file specific help messages or the STNGUIDE file for information on formats available in individual files.

REENTER DISPLAY FORMAT FOR ALL FILES
(FILEDEFAULT):end

=> d his

(FILE 'HOME' ENTERED AT 12:34:43 ON 06 SEP 2002)

FILE 'MEDLINE, BIOSIS, CAPLUS' ENTERED AT 12:34:51 ON 06 SEP 2002
L1 28577 S PAPILLOMA
L2 16514 S CPG
L3 27 S L1 AND L2
L4 14 DUP REM L3 (13 DUPLICATES REMOVED)
L5 689344 S LESION
L6 322 S L2 AND L5
L7 1234235 S VIRUS
L8 1403845 S ?VIRUS OR ?VIRAL
L9 17 S L6 AND L8
L10 10 DUP REM L9 (7 DUPLICATES REMOVED)
L11 284657 S VACCIN?
L12 799 S L2 AND L11
L13 498 S WITHOUT ANTIGEN
L14 4125 S WITHOUT(3A)ANTIGEN
L15 7 S L12 AND L14
L16 3 DUP REM L15 (4 DUPLICATES REMOVED)

=> s l1 and l14
L17 7 L1 AND L14

=> dup rem l17
PROCESSING COMPLETED FOR L17
L18 5 DUP REM L17 (2 DUPLICATES REMOVED)

=> d ti so 1-5

L18 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2002 ACS
TI Methods of preventing and treating viral infections and using immunomodulatory polynucleotide sequences
SO PCT Int. Appl., 65 pp.
CODEN: PIXXD2

L18 ANSWER 2 OF 5 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE 1
TI Growth stimulation of tumor-specific cytotoxic T lymphocytes on concanavalin A-immobilized carrier beads.
SO Cytotechnology, (1998) Vol. 26, No. 1, pp. 13-21.
ISSN: 0920-9069.

L18 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2002 ACS
TI A vaccine conjugate of "ISCAR" immunocarrier and peptide epitopes of the
E7 cervical cancer-associated protein of human papillomavirus type 16
elicits specific Th1- and Th2-type responses in immunized mice in the
absence of oil-based adjuvants
SO Clinical and Experimental Immunology (1995), 101(2), 265-71
CODEN: CEXIAL; ISSN: 0009-9104

L18 ANSWER 4 OF 5 MEDLINE DUPLICATE 2
TI Histopathological development of equine cutaneous **papillomas**.
SO JOURNAL OF COMPARATIVE PATHOLOGY, (1990 May) 102 (4) 393-403.
Journal code: 0102444. ISSN: 0021-9975.

L18 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2002 ACS
TI Detection of human papillomavirus DNA in anogenital exophytic lesions by
in situ hybridization to paraffin sections
SO Acta Pathol. Jpn. (1988), 38(9), 1131-9
CODEN: APJAAG; ISSN: 0001-6632

=> d ibib ab 1,4

L18 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:693074 CAPLUS
DOCUMENT NUMBER: 135:267226
TITLE: Methods of preventing and treating viral infections and using immunomodulatory polynucleotide sequences
INVENTOR(S): Van Nest, Gary
PATENT ASSIGNEE(S): Dynavax Technologies Corporation, USA
SOURCE: PCT Int. Appl., 65 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001068077	A2	20010920	WO 2001-US7840	20010312

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
US 2002028784 A1 20020307 US 2001-802685 20010309
PRIORITY APPLN. INFO.: US 2000-188302P P 20000310
US 2001-802685 A 20010309

AB The invention provides methods of suppression, prevention, and/or treatment of infection by viruses. A polynucleotide comprising an immunostimulatory sequence (an "ISS") is administered to an individual who is at risk of being exposed to, has been exposed to or is infected with a virus. The ISS-contg. polynucleotide is administered **without** any **antigens** of the virus. Administration of the ISS-contg. polynucleotide results in reduced incidence and/or severity of one or more symptoms of virus infection.

L18 ANSWER 4 OF 5 MEDLINE DUPLICATE 2
ACCESSION NUMBER: 90308034 MEDLINE
DOCUMENT NUMBER: 90308034 PubMed ID: 2164051
TITLE: Histopathological development of equine cutaneous **papillomas**.
AUTHOR: Hamada M; Oyamada T; Yoshikawa H; Yoshikawa T; Itakura C
CORPORATE SOURCE: Department of Comparative Pathology, Faculty of Veterinary Medicine, Hokkaido University, Sapporo, Japan.
SOURCE: JOURNAL OF COMPARATIVE PATHOLOGY, (1990 May) 102 (4) 393-403.
Journal code: 0102444. ISSN: 0021-9975.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199008
ENTRY DATE: Entered STN: 19900921
Last Updated on STN: 19900921
Entered Medline: 19900815

AB The histopathological development of equine cutaneous **papillomas**

was studied in 78 warts naturally occurring in 50 one to 3-year-old Thoroughbred or Arab horses and in 54 warts experimentally induced in three 2-year-old Thoroughbreds. Lesions in the natural cases were categorized into three phases, growth, development and regression. Main lesions of the growing phase were marked hyperplasia of the basal cells and mild to moderate acanthosis, hyper- and parakeratosis with a few intranuclear inclusion bodies (IIB) which were positive with anti-bovine papillomavirus serum. In the developing phase, there was prominent acanthosis with cellular swelling and fusion, and marked hyper- and parakeratosis. Many IIB were also present in swollen or degenerative prickle cells and granular cells, with a high degree of parakeratosis in keratinocytes. In the regressing phase, epidermal layers were almost normal with only slight hyperplastic change. However, there was rete peg proliferation downward into the dermis with moderate proliferation of fibroblasts and collagen fibres. In addition, in 10 spontaneous and one experimental wart, the lesions were fibropapillomas and this has never been described in horses previously. It was concluded that **papillomas** were initiated by basal cell hyperplasia **without** viral **antigen** production, with formation of acanthosis and hyper- and parakeratosis with IIB production. These findings were confirmed by examination of the experimental cases on the basis of the gross diameter of the warts.

=> d his

(FILE 'HOME' ENTERED AT 12:34:43 ON 06 SEP 2002)

FILE 'MEDLINE, BIOSIS, CAPLUS' ENTERED AT 12:34:51 ON 06 SEP 2002
L1 28577 S PAPILLOMA
L2 16514 S CPG
L3 27 S L1 AND L2
L4 14 DUP REM L3 (13 DUPLICATES REMOVED)
L5 689344 S LESION
L6 322 S L2 AND L5
L7 1234235 S VIRUS
L8 1403845 S ?VIRUS OR ?VIRAL
L9 17 S L6 AND L8
L10 10 DUP REM L9 (7 DUPLICATES REMOVED)
L11 284657 S VACCIN?
L12 799 S L2 AND L11
L13 498 S WITHOUT ANTIGEN
L14 4125 S WITHOUT(3A)ANTIGEN
L15 7 S L12 AND L14
L16 3 DUP REM L15 (4 DUPLICATES REMOVED)
L17 7 S L1 AND L14
L18 5 DUP REM L17 (2 DUPLICATES REMOVED)

=> s l1 and l12
L19 1 L1 AND L12

=> d ti so

L19 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2002 ACS
TI E6 and E7 fusion proteins for **vaccination** against human **papilloma** virus
SO PCT Int. Appl., 62 pp.
CODEN: PIXXD2

=> s l2 and l8
L20 1300 L2 AND L8

=> s l11 and l20
L21 263 L11 AND L20

=> s clinic?
L22 2676128 CLINIC?

=> s l21 and l22
L23 35 L21 AND L22

=> d ti so 1-35

L23 ANSWER 1 OF 35 MEDLINE
TI Established human **papillomavirus** type 16-expressing tumors are effectively eradicated following **vaccination** with long peptides.
SO JOURNAL OF IMMUNOLOGY, (2002 Jul 1) 169 (1) 350-8.
Journal code: 2985117R. ISSN: 0022-1767.

L23 ANSWER 2 OF 35 MEDLINE
TI Medicinal chemistry and therapeutic potential of **CpG** DNA.
SO Trends Mol Med, (2002 Mar) 8 (3) 114-21. Ref: 67
Journal code: 100966035. ISSN: 1471-4914.

L23 ANSWER 3 OF 35 MEDLINE
TI Topical immunomodulators--progress towards treating inflammation, infection, and cancer.
SO Lancet Infect Dis, (2001 Oct) 1 (3) 189-98. Ref: 85
Journal code: 101130150. ISSN: 1473-3099.

L23 ANSWER 4 OF 35 MEDLINE
TI Nucleic acid **vaccines**: tasks and tactics.
SO IMMUNOLOGIC RESEARCH, (2001) 24 (3) 225-44. Ref: 191
Journal code: 8611087. ISSN: 0257-277X.

L23 ANSWER 5 OF 35 MEDLINE
TI Nucleic acid for the treatment of cancer: genetic **vaccines** and DNA adjuvants.
SO CURRENT PHARMACEUTICAL DESIGN, (2001 Nov) 7 (16) 1641-67. Ref: 204
Journal code: 9602487. ISSN: 1381-6128.

L23 ANSWER 6 OF 35 MEDLINE
TI Gene combination raises broad human immunodeficiency **virus** -specific cytotoxicity.
SO HUMAN GENE THERAPY, (2001 Sep 1) 12 (13) 1623-37.
Journal code: 9008950. ISSN: 1043-0342.

L23 ANSWER 7 OF 35 MEDLINE
TI DNA **vaccine**.
SO RINSHO BYORI. JAPANESE JOURNAL OF CLINICAL PATHOLOGY, (2001 Jul) 49 (7) 669-72. Ref: 10
Journal code: 2984781R. ISSN: 0047-1860.

L23 ANSWER 8 OF 35 MEDLINE
TI Improving DNA **vaccines** targeting **viral** infection.
SO INTERVIROLOGY, (2000) 43 (4-6) 233-46. Ref: 137
Journal code: 0364265. ISSN: 0300-5526.

L23 ANSWER 9 OF 35 MEDLINE
TI Human **papillomavirus virus**-like particles are efficient oral immunogens when coadministered with Escherichia coli heat-labile enterotoxin mutant R192G or **CpG** DNA.
SO JOURNAL OF VIROLOGY, (2001 May) 75 (10) 4752-60.
Journal code: 0113724. ISSN: 0022-538X.

L23 ANSWER 10 OF 35 MEDLINE
TI The role of **CpG** in DNA **vaccines**.
SO SPRINGER SEMINARS IN IMMUNOPATHOLOGY, (2000) 22 (1-2) 125-32. Ref: 63
Journal code: 7910384. ISSN: 0172-6641.

L23 ANSWER 11 OF 35 MEDLINE
TI How BCG led to the discovery of immunostimulatory DNA.

SO JAPANESE JOURNAL OF INFECTIOUS DISEASES, (1999 Feb) 52 (1) 1-11. Ref: 91
Journal code: 100893704. ISSN: 1344-6304.

L23 ANSWER 12 OF 35 MEDLINE
TI DNA and RNA-based **vaccines**: principles, progress and prospects.
SO VACCINE, (1999 Dec 10) 18 (9-10) 765-77. Ref: 142
Journal code: 8406899. ISSN: 0264-410X.

L23 ANSWER 13 OF 35 MEDLINE
TI **CpG** DNA and LPS induce distinct patterns of activation in human monocytes.
SO GENE THERAPY, (1999 May) 6 (5) 893-903.
Journal code: 9421525. ISSN: 0969-7128.

L23 ANSWER 14 OF 35 MEDLINE
TI Sequence motifs in **adenoviral** DNA block immune activation by stimulatory **CpG** motifs.
SO PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF
AMERICA, (1998 Oct 13) 95 (21) 12631-6.
Journal code: 7505876. ISSN: 0027-8424.

L23 ANSWER 15 OF 35 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI Established human **papillomavirus** type 16-expressing tumors are effectively eradicated following **vaccination** with long peptides.
SO Journal of Immunology, (July 1, 2002) Vol. 169, No. 1, pp. 350-358.
http://www.jimmunol.org/. print.
ISSN: 0022-1767.

L23 ANSWER 16 OF 35 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI Medicinal chemistry and therapeutic potential of **CpG** DNA.
SO Trends in Molecular Medicine, (March, 2002) Vol. 8, No. 3, pp. 114-121.
http://tmm.trends.com. print.
ISSN: 1471-4914.

L23 ANSWER 17 OF 35 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI Nucleic acid **vaccines**: Tasks and tactics.
SO Immunologic Research, (2001) Vol. 24, No. 3, pp. 225-244. print.
ISSN: 0257-277X.

L23 ANSWER 18 OF 35 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI Human **papillomavirus virus**-like particles are efficient oral immunogens when coadministered with Escherichia coli
heat-labile enterotoxin mutant R192G or **CpG** DNA.
SO Journal of Virology, (May, 2001) Vol. 75, No. 10, pp. 4752-4760. print.
ISSN: 0022-538X.

L23 ANSWER 19 OF 35 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI Improving DNA **vaccines** targeting **viral** infection.
SO Intervirology, (July December, 2000) Vol. 43, No. 4-6, pp. 233-246. print.
ISSN: 0300-5526.

L23 ANSWER 20 OF 35 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI DNA and RNA-based **vaccines**: Principles, progress and prospects.
SO Vaccine, (Dec. 10, 1999) Vol. 18, No. 9-10, pp. 765-777.
ISSN: 0264-410X.

L23 ANSWER 21 OF 35 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI **CpG** DNA and LPS induce distinct patterns of activation in human monocytes.
SO Gene Therapy, (May, 1999) Vol. 6, No. 5, pp. 893-903.
ISSN: 0969-7128.

L23 ANSWER 22 OF 35 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
TI Sequence motifs in **adenoviral** DNA block immune activation by stimulatory **CpG** motifs.
SO Proceedings of the National Academy of Sciences of the United States of
America, (Oct. 13, 1998) Vol. 95, No. 21, pp. 12631-12636.
ISSN: 0027-8424.

L23 ANSWER 23 OF 35 CAPLUS COPYRIGHT 2002 ACS
TI Topical immunomodulators-progress towards treating inflammation, infection, and cancer
SO Lancet Infectious Diseases (2001), 1(3), 189-198
CODEN: LIDABP; ISSN: 1473-3099

L23 ANSWER 24 OF 35 CAPLUS COPYRIGHT 2002 ACS
TI Established human **papillomavirus** type 16-expressing tumors are effectively eradicated following **vaccination** with long peptides
SO Journal of Immunology (2002), 169(1), 350-358
CODEN: JOIMA3; ISSN: 0022-1767

L23 ANSWER 25 OF 35 CAPLUS COPYRIGHT 2002 ACS
TI Medicinal chemistry and therapeutic potential of **CpG** DNA
SO Trends in Molecular Medicine (2002), 8(3), 114-121
CODEN: TMMRCY; ISSN: 1471-4914

L23 ANSWER 26 OF 35 CAPLUS COPYRIGHT 2002 ACS
TI Nucleic acid **vaccines**: tasks and tactics
SO Immunologic Research (2001), 24(3), 225-244
CODEN: IMRSEB; ISSN: 0257-277X

L23 ANSWER 27 OF 35 CAPLUS COPYRIGHT 2002 ACS
TI Nucleic acid for the treatment of cancer: genetic **vaccines** and DNA adjuvants
SO Current Pharmaceutical Design (2001), 7(16), 1641-1667
CODEN: CPDEFP; ISSN: 1381-6128

L23 ANSWER 28 OF 35 CAPLUS COPYRIGHT 2002 ACS
TI DNA **vaccine**
SO Rinsho Byori (2001), 49(7), 669-672
CODEN: RBYOAI; ISSN: 0047-1860

L23 ANSWER 29 OF 35 CAPLUS COPYRIGHT 2002 ACS
TI Improving DNA **vaccines** targeting **viral** infection
SO Intervirology (2001), Volume Date 2000, 43(4-6), 233-246
CODEN: IVRYAK; ISSN: 0300-5526

L23 ANSWER 30 OF 35 CAPLUS COPYRIGHT 2002 ACS
TI The role of **CpG** in DNA **vaccines**
SO Immunostimulatory DNA Sequences (2001), 125-132. Editor(s): Raz, Eval.
Publisher: Springer-Verlag, Berlin, Germany.
CODEN: 69AUN8

L23 ANSWER 31 OF 35 CAPLUS COPYRIGHT 2002 ACS
TI The role of **CpG** in DNA **vaccines**
SO Springer Seminars in Immunopathology (2000), 22(1-2), 125-132
CODEN: SSIMDV; ISSN: 0344-4325

L23 ANSWER 32 OF 35 CAPLUS COPYRIGHT 2002 ACS
TI Stereoisomers of **CpG** oligonucleotides and related methods
SO PCT Int. Appl., 88 pp.
CODEN: PIXXD2

L23 ANSWER 33 OF 35 CAPLUS COPYRIGHT 2002 ACS
TI DNA and RNA-based **vaccines**: principles, progress and prospects
SO Vaccine (1999), 18(9-10), 765-777
CODEN: VACCDE; ISSN: 0264-410X

L23 ANSWER 34 OF 35 CAPLUS COPYRIGHT 2002 ACS
TI **CpG** DNA and LPS induce distinct patterns of activation in human monocytes

SO Gene Therapy (1999), 6(5), 893-903
CODEN: GETHEC; ISSN: 0969-7128

L23 ANSWER 35 OF 35 CAPLUS COPYRIGHT 2002 ACS
TI Sequence motifs in **adenoviral** DNA block immune activation by stimulatory **CpG** motifs
SO Proceedings of the National Academy of Sciences of the United States of
America (1998), 95(21), 12631-12636
CODEN: PNASA6; ISSN: 0027-8424

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PROCESSING COMPLETED FOR L23
L24 17 DUP REM L23 (18 DUPLICATES REMOVED)

=> d ti so 1-17

L24 ANSWER 1 OF 17 MEDLINE DUPLICATE 1
TI Established human **papillomavirus** type 16-expressing tumors are effectively eradicated following **vaccination** with long peptides.
SO JOURNAL OF IMMUNOLOGY, (2002 Jul 1) 169 (1) 350-8.
Journal code: 2985117R. ISSN: 0022-1767.

L24 ANSWER 2 OF 17 MEDLINE DUPLICATE 2
TI Medicinal chemistry and therapeutic potential of **CpG** DNA.
SO Trends Mol Med, (2002 Mar) 8 (3) 114-21. Ref: 67
Journal code: 100966035. ISSN: 1471-4914.

L24 ANSWER 3 OF 17 MEDLINE DUPLICATE 3
TI Human **papillomavirus virus**-like particles are efficient oral immunogens when coadministered with Escherichia coli
heat-labile enterotoxin mutant R192G or **CpG** DNA.
SO JOURNAL OF VIROLOGY, (2001 May) 75 (10) 4752-60.
Journal code: 0113724. ISSN: 0022-538X.

L24 ANSWER 4 OF 17 MEDLINE DUPLICATE 4
TI Nucleic acid for the treatment of cancer: genetic **vaccines** and DNA adjuvants.
SO CURRENT PHARMACEUTICAL DESIGN, (2001 Nov) 7 (16) 1641-67. Ref: 204
Journal code: 9602487. ISSN: 1381-6128.

L24 ANSWER 5 OF 17 MEDLINE
TI Gene combination raises broad human immunodeficiency **virus** -specific cytotoxicity.
SO HUMAN GENE THERAPY, (2001 Sep 1) 12 (13) 1623-37.
Journal code: 9008950. ISSN: 1043-0342.

L24 ANSWER 6 OF 17 MEDLINE DUPLICATE 5
TI DNA **vaccine**.
SO RINSHO BYORI. JAPANESE JOURNAL OF CLINICAL PATHOLOGY, (2001 Jul) 49 (7)
669-72. Ref: 10
Journal code: 2984781R. ISSN: 0047-1860.

L24 ANSWER 7 OF 17 CAPLUS COPYRIGHT 2002 ACS
TI Improving DNA **vaccines** targeting **viral** infection
SO Intervirology (2001), Volume Date 2000, 43(4-6), 233-246
CODEN: IVRYAK; ISSN: 0300-5526

L24 ANSWER 8 OF 17 MEDLINE DUPLICATE 6
TI Nucleic acid **vaccines**: tasks and tactics.
SO IMMUNOLOGIC RESEARCH, (2001) 24 (3) 225-44. Ref: 191
Journal code: 8611087. ISSN: 0257-277X.

L24 ANSWER 9 OF 17 MEDLINE DUPLICATE 7
TI Topical immunomodulators--progress towards treating inflammation,
infection, and cancer.
SO Lancet Infect Dis, (2001 Oct) 1 (3) 189-98. Ref: 85
Journal code: 101130150. ISSN: 1473-3099.

L24 ANSWER 10 OF 17 CAPLUS COPYRIGHT 2002 ACS
TI The role of **CpG** in DNA **vaccines**
SO Immunostimulatory DNA Sequences (2001), 125-132. Editor(s): Raz, Eval.
Publisher: Springer-Verlag, Berlin, Germany.
CODEN: 69AUN8

L24 ANSWER 11 OF 17 CAPLUS COPYRIGHT 2002 ACS
TI Stereoisomers of **CpG** oligonucleotides and related methods
SO PCT Int. Appl., 88 pp.
CODEN: PIXXD2

L24 ANSWER 12 OF 17 MEDLINE DUPLICATE 8
TI Improving DNA **vaccines** targeting **viral** infection.
SO INTERVIROLOGY, (2000) 43 (4-6) 233-46. Ref: 137
Journal code: 0364265. ISSN: 0300-5526.

L24 ANSWER 13 OF 17 MEDLINE DUPLICATE 9
TI The role of **CpG** in DNA **vaccines**.
SO SPRINGER SEMINARS IN IMMUNOPATHOLOGY, (2000) 22 (1-2) 125-32. Ref: 63
Journal code: 7910384. ISSN: 0172-6641.

L24 ANSWER 14 OF 17 MEDLINE DUPLICATE 10
TI **CpG** DNA and LPS induce distinct patterns of activation in human monocytes.
SO GENE THERAPY, (1999 May) 6 (5) 893-903.
Journal code: 9421525. ISSN: 0969-7128.

L24 ANSWER 15 OF 17 MEDLINE DUPLICATE 11
TI DNA and RNA-based **vaccines**: principles, progress and prospects.
SO VACCINE, (1999 Dec 10) 18 (9-10) 765-77. Ref: 142
Journal code: 8406899. ISSN: 0264-410X.

L24 ANSWER 16 OF 17 MEDLINE
TI How BCG led to the discovery of immunostimulatory DNA.
SO JAPANESE JOURNAL OF INFECTIOUS DISEASES, (1999 Feb) 52 (1) 1-11. Ref: 91
Journal code: 100893704. ISSN: 1344-6304.

L24 ANSWER 17 OF 17 MEDLINE DUPLICATE 12
TI Sequence motifs in **adenoviral** DNA block immune activation by stimulatory **CpG** motifs.
SO PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF
AMERICA, (1998 Oct 13) 95 (21) 12631-6.
Journal code: 7505876. ISSN: 0027-8424.

=> d ibib ab 13,12,10,7,4,1

L24 ANSWER 13 OF 17 MEDLINE DUPLICATE 9
ACCESSION NUMBER: 2001084149 MEDLINE
DOCUMENT NUMBER: 20401104 PubMed ID: 10944807
TITLE: The role of **CpG** in DNA **vaccines**.
AUTHOR: McCluskie M J; Weeratna R D; Davis H L
CORPORATE SOURCE: Loeb Health Research Institute at the Ottawa Hospital,
Canada.
SOURCE: SPRINGER SEMINARS IN IMMUNOPATHOLOGY, (2000) 22 (1-2)
125-32. Ref: 63
Journal code: 7910384. ISSN: 0172-6641.
PUB. COUNTRY: GERMANY: Germany, Federal Republic of
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200101
ENTRY DATE: Entered STN: 20010322
Last Updated on STN: 20010322
Entered Medline: 20010118
AB One of the most exciting developments in the field of **vaccine**

research in recent years has been DNA **vaccines**, with which immune responses are induced subsequent to the in vivo expression of antigen from directly introduced plasmid DNA. Strong immune responses have been demonstrated in a number of animal models against many **viral**, bacterial and parasitic pathogens, and several human **clinical** trials have been undertaken. The strong and long-lasting antigen-specific humoral (antibodies) and cell-mediated (T help, other cytokine functions and cytotoxic T cells) immune responses induced by DNA **vaccines** appear to be due to the sustained in vivo expression of antigen, efficient antigen presentation and the presence of stimulatory **CpG** motifs. These features are desirable for the development of prophylactic **vaccines** against numerous infectious agents. Furthermore, the strong cellular responses are also very desirable for the development of therapeutic DNA **vaccines** to treat chronic **viral** infections or cancer. Efforts are now focusing on understanding the mechanisms for the induction of these immune responses, which in turn should aid in the optimization of DNA **vaccines**. This review will focus on the role of **CpG** motifs in DNA **vaccines**.

L24 ANSWER 12 OF 17 MEDLINE DUPLICATE 8
ACCESSION NUMBER: 2001394148 MEDLINE
DOCUMENT NUMBER: 21150233 PubMed ID: 11251379
TITLE: Improving DNA **vaccines** targeting **viral** infection.
AUTHOR: Sin J I; Weiner D B
CORPORATE SOURCE: Department of Pathology and Laboratory Medicine, University of Pennsylvania, Philadelphia, PA 19104, USA.
SOURCE: INTERVIROLOGY, (2000) 43 (4-6) 233-46. Ref: 137
Journal code: 0364265. ISSN: 0300-5526.
PUB. COUNTRY: Switzerland
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) General Review; (REVIEW) (REVIEW, TUTORIAL)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200107
ENTRY DATE: Entered STN: 20010716
Last Updated on STN: 20010716
Entered Medline: 20010712
AB DNA **vaccination** techniques have been recently under intensive investigation both preclinically and in human studies aimed at impacting **viral** infection. Collectively, DNA **vaccines** expressing **viral** antigens induce both antigen-specific humoral and cellular immune responses which in model systems are capable of impacting **viral** infection. However, in **clinical** settings the potency of this approach is still under investigation. Efficacy is improved in specific circumstances through the addition of immunomodulatory molecules including cytokines as plasmid cassettes or through modification of the numbers of specific **CpG** sequences present in the backbone. Furthermore, combined **vaccination** schemes have been an important research focus for generating enhanced immunogenicity against **viral** infections. The ultimate utility of these approaches to prevent **viral** infection will require more work. However, improvements in the potency and focus of DNA **vaccines** present us with new opportunities for both basic research into protective immunity as well as novel strategies for immune therapy and prophylaxis.

L24 ANSWER 10 OF 17 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:35178 CAPLUS
DOCUMENT NUMBER: 135:120786
TITLE: The role of **CpG** in DNA **vaccines**
AUTHOR(S): McCluskie, Michael J.; Weeratna, Risini D.; Davis, Heather L.
CORPORATE SOURCE: Loeb Health Research Institute, Ottawa Hospital, Ottawa, K1Y 4E9, Can.
SOURCE: Immunostimulatory DNA Sequences (2001), 125-132.
Editor(s): Raz, Eval. Springer-Verlag: Berlin, Germany.
CODEN: 69AUN8
DOCUMENT TYPE: Conference; General Review
LANGUAGE: English
AB A review with 63 refs. One of the most exciting developments in the field of **vaccine** research in recent years has been DNA **vaccines**, with which immune responses are induced subsequent to the in vivo expression of antigen from directly introduced plasmid DNA.
Strong immune responses have been demonstrated in a no. of animal models against many **viral**, bacterial, and parasitic pathogens, and several human **clin.** trials have been undertaken. The strong and long-lasting antigen-specific humoral (antibodies) and cell-mediated (T help, other cytokine functions, and cytotoxic T cells) immune responses induced by DNA **vaccines** appear to be due to the sustained in vivo expression of antigen, efficient antigen presentation, and the presence of stimulatory **CpG** motifs. These features are desirable for the development of prophylactic **vaccines** against numerous infectious agents. Furthermore, the strong cellular responses are also very desirable for the development of therapeutic DNA **vaccines** to treat chronic **viral** infections or cancer.
Efforts are now focusing on understanding the mechanisms for the induction of these immune responses, which in turn should aid in the optimization of DNA **vaccines**.
REFERENCE COUNT: 63 THERE ARE 63 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 7 OF 17 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2001:258834 CAPLUS
DOCUMENT NUMBER: 135:316991
TITLE: Improving DNA **vaccines** targeting **viral** infection
AUTHOR(S): Sin, Jeong-Im; Weiner, David B.
CORPORATE SOURCE: Department of Pathology and Laboratory Medicine, University of Pennsylvania, Philadelphia, PA, 19104, USA
SOURCE: Intervirology (2001), Volume Date 2000, 43(4-6), 233-246
CODEN: IVRYAK; ISSN: 0300-5526
PUBLISHER: S. Karger AG
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
AB A review. DNA **vaccination** techniques have been recently under intensive investigation both preclinically and in human studies aimed at impacting **viral** infection. Collectively, DNA **vaccines** expressing **viral** antigens induce both antigen-specific humoral and cellular immune responses which in model systems are capable of impacting **viral** infection. However, in **clin.** settings the potency of this approach is still under investigation. Efficacy is improved in specific circumstances through the addn. of immunomodulatory

mols. including cytokines as plasmid cassettes or through modification of
the nos. of specific CpG sequences present in the backbone. Furthermore, combined vaccination schemes have been an important research focus for generating enhanced immunogenicity against viral infections. The ultimate utility of these approaches to prevent viral infection will require more work. However, improvements in the potency and focus of DNA vaccines present us with new opportunities for both basic research into protective immunity as
well as novel strategies for immune therapy and prophylaxis.
REFERENCE COUNT: 137 THERE ARE 137 CITED REFERENCES AVAILABLE FOR
THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE
FORMAT

L24 ANSWER 4 OF 17 MEDLINE DUPLICATE 4
ACCESSION NUMBER: 2001514591 MEDLINE
DOCUMENT NUMBER: 21446489 PubMed ID: 11562304
TITLE: Nucleic acid for the treatment of cancer: genetic vaccines and DNA adjuvants.
AUTHOR: Leitner W W; Hammerl P; Thalhamer J
CORPORATE SOURCE: Surgery Branch, National Cancer Institute, NIH, Bethesda,
MD 20892, USA.. Wolfgang_Leitner@nih.gov
SOURCE: CURRENT PHARMACEUTICAL DESIGN, (2001 Nov) 7 (16) 1641-67.
Ref: 204
Journal code: 9602487. ISSN: 1381-6128.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, ACADEMIC)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200201
ENTRY DATE: Entered STN: 20010920
Last Updated on STN: 20020129
Entered Medline: 20020128
AB Despite some interesting pilot experiments more than a century ago,
nucleic acid has only recently been added to the list of agents used for
the prevention and therapy of cancer. Two distinct features of nucleic acids are used for this purpose: in DNA and RNA vaccines, genetic information for pathogen- or tumor-derived antigens is delivered
to the host who then produces the encoded antigen and initiates an immune
response. In DNA adjuvants, immunostimulatory sequences (CpG motifs) present in DNA of bacterial origin are used. Such sequences are
delivered in the form of oligonucleotides or within the sequence of DNA
vaccine. In addition, CpG oligonucleotides by themselves have successfully been used to stimulate the immune system in an antigen-independent manner for the treatment of experimental tumors. DNA
and RNA vaccines for the treatment and prevention of cancer and other diseases suffer from two some shortcomings: insufficient immunogenicity and--in the case of RNA--low stability. A variety of strategies are being explored to improve the efficacy of nucleic acid vaccines (genetic vaccines) especially for self-antigens in the case of cancer. Among the most recent improvements are self-replicating RNA vaccines and replicase-based DNA-vaccines in which antigen expression is under the control of an alphaviral replicase. Despite highly promising results in many animal tumor models the efficacy of nucleic acid vaccines and adjuvants in the clinic remains to be seen.

L24 ANSWER 1 OF 17 MEDLINE DUPLICATE 1
ACCESSION NUMBER: 2002334121 MEDLINE
DOCUMENT NUMBER: 22072208 PubMed ID: 12077264
TITLE: Established human papillomavirus type 16-expressing tumors are effectively eradicated following vaccination with long peptides.
AUTHOR: Zwaveling Sander; Ferreira Mota Sandra C; Nouta Jan; Johnson Mark; Lipford Grayson B; Offringa Rienk; van der Burg Sjoerd H; Melief Cornelis J M
CORPORATE SOURCE: Department of Immunohematology and Blood Transfusion, Leiden University Medical Center, Leiden, The Netherlands.
SOURCE: JOURNAL OF IMMUNOLOGY, (2002 Jul 1) 169 (1) 350-8.
Journal code: 2985117R. ISSN: 0022-1767.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 200208
ENTRY DATE: Entered STN: 20020623
Last Updated on STN: 20020823
Entered Medline: 20020813
AB Peptide-based vaccines aimed at the induction of effective T cell responses against established cancers have so far only met with limited clinical success and clearly need to be improved. In a preclinical model of human papillomavirus (HPV)16-induced cervical cancer we show that prime-boost vaccinations with the HPV16-derived 35 amino-acid long peptide E7(43-77), containing both a CTL
epitope and a Th epitope, resulted in the induction of far more robust E7-specific CD8(+) T cell responses than vaccinations with the minimal CTL epitope only. We demonstrate that two distinct mechanisms are
responsible for this effect. First, vaccinations with the long peptide lead to the generation of E7-specific CD4(+) Th cells. The level
of the induced E7-specific CD8(+) T cell response proved to be dependent
on the interactions of these Th cells with professional APC. Second, we
demonstrate that vaccination with the long peptide and dendritic cell-activating agents resulted in a superior induction of E7-specific CD8(+) T cells, even when T cell help was excluded. This suggests that,
due to its size, the long peptide was preferably endocytosed, processed,
and presented by professional APCs. Moreover, the efficacy of this superior HPV-specific T cell induction was demonstrated in therapeutic
prime-boost vaccinations in which the long peptide admixed with the dendritic cell-activating adjuvant oligodeoxynucleotide-CpG resulted in the eradication of large, established HPV16-expressing tumors.
Because the vaccine types used in this study are easy to prepare under good manufacturing practice conditions and are safe to administer to
humans, these data provide important information for future clinical trials.

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(FILE 'HOME' ENTERED AT 12:34:43 ON 06 SEP 2002)

FILE 'MEDLINE, BIOSIS, CAPLUS' ENTERED AT 12:34:51 ON 06 SEP 2002
L1 28577 S PAPILLOMA
L2 16514 S CPG
L3 27 S L1 AND L2
L4 14 DUP REM L3 (13 DUPLICATES REMOVED)
L5 689344 S LESION
L6 322 S L2 AND L5
L7 1234235 S VIRUS

L8 1403845 S ?VIRUS OR ?VIRAL
L9 17 S L6 AND L8
L10 10 DUP REM L9 (7 DUPLICATES REMOVED)
L11 284657 S VACCIN?
L12 799 S L2 AND L11
L13 498 S WITHOUT ANTIGEN
L14 4125 S WITHOUT(3A)ANTIGEN
L15 7 S L12 AND L14
L16 3 DUP REM L15 (4 DUPLICATES REMOVED)
L17 7 S L1 AND L14
L18 5 DUP REM L17 (2 DUPLICATES REMOVED)
L19 1 S L1 AND L12
L20 1300 S L2 AND L8
L21 263 S L11 AND L20
L22 2676128 S CLINIC?
L23 35 S L21 AND L22
L24 17 DUP REM L23 (18 DUPLICATES REMOVED)

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ENTRY	SESSION
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